

Air Force Interior Design Guides
Chapter 7 – Attachment 2: Sample Specifications
Blank Specification

CSI Section 09680 – Carpet

Project: <Insert name and location of project.>

1. Part 1 – General

1.1. Summary: This Section includes woven carpet, tufted carpet, carpet tile, and carpet cushion.

1.2. Submittals

1.2.1. Product Data: For each product indicated.

1.2.2. Shop Drawings: Include the following: <Edit list below to suit project.>

- Existing floor materials to be removed.
- Existing floor materials to remain.
- Seam locations.
- Pattern type, repeat, location, direction, and starting point.
- Pile direction.
- Insets and borders.
- Transition, and other accessory strips.
- Transition details to other flooring materials.

1.2.3. Samples: For each carpet, cushion, and exposed accessory and for each color and pattern required, as per Contracting Officer request. <Previous paragraph assumes manufacturer's standard-size samples are acceptable. Revise to suit project.>

1.2.4. Product Schedule: Use same room and product designations indicated on Drawings and in schedules.

1.2.5. Maintenance data.

1.3. Quality Assurance

1.3.1. Contractor/Installer Qualifications: All work is to be performed by contractors/installers who are CFI Certified Floorcovering Installers (International Certified Flooring Installer Association), or manufacturer's approved installers. Foremen on the job-site must be "Certified C-II Minimum."

1.3.2. Inspection: All materials to be made available for inspection as per Contracting Officer request.

1.3.3. Install mockups as per Contracting Officer request. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.4. Delivery, Storage, Handling, and Labeling

1.4.1. Comply with CRI 104, Section 5, "Storage and Handling."

1.4.2. Labeling:

- A label meeting the Federal Labeling Requirements, as stated in the Textile Products Identification Act under the Federal Trade Commission, shall be attached to the certification sample and the product delivered to the purchaser.
- The manufacturer is required to put all information as to the country of origin, fiber content, manufacturer's name or RN number, or a label or tag attached to a conspicuous place on the outside of the carpet. This information should be set forth consecutively and separately in type or lettering plainly legible and of equal size.

1.5. Project Conditions

1.5.1. General: Comply with CRI 104, Section 6.1, "Site Conditions; Temperature and Humidity."

1.5.2. Environmental Limitations: Do not install carpet and cushion until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.5.3. Do not install carpet over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by manufacturer. **<Delete previous paragraph if products are not adhesively applied to concrete substrates. Revise to suit Project.>**

1.5.4. Where demountable partitions or other items are indicated for installation on top of carpet, install carpet before installing these items.

1.6. Warranty

1.6.1. Carpet Warranty: Manufacturer's standard form in which manufacturer agrees to replace carpet that does not comply with requirements or that fails within [10] **<Insert number>** years from date of Substantial Completion. Warranty does not include deterioration or failure of carpet from unusual traffic, failure of substrate, vandalism, or abuse. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, and delamination.

1.6.2. Carpet Cushion Warranty: Manufacturer's standard form agreeing to replace carpet cushion that does not comply with requirements or that fails within [10] **<Insert number>** years from date of Substantial Completion. Warranty does not include deterioration or failure of carpet cushion from unusual traffic, failure of substrate, vandalism, or abuse. Failure includes, but is not limited to, permanent indentation or compression.

1.7. Extra Materials

1.7.1. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Carpet: Full-width rolls or uncut carpet tiles equal to [10] ten percent of amount installed for each type indicated, but not less than [10 sq. yd. (8.3 sq. m)].

1.8. Applicable Publications:

1.8.1. Carpet and Rug Institute

- CRI 104, *Standard for Installation of Commercial Carpet*
- CRI 105, *Standard for Installation of Residential Carpet*
- CRI TM-102
- CRI Indoor Air Quality (IAQ) "Green Label" Testing Programs
- Commercial Carpet Specification Guidelines

Order from: The Carpet and Rug Institute

P.O. Box 2048
Dalton, GA 30722-2048
Fax 706-278-8835
Telephone (706)278-0232 or 1-800-882-8846

1.8.2. American Society for Testing and Materials (ASTM):

- ASTM D-5793, *Standard Test Method for Binding Sites Per Unit Length or Width of Pile Yarn Floor Coverings*
- ASTM D-418, *Standard Test Methods for Testing Pile Yarn Floor Covering Construction*
- ASTM D-5116, *Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products*
- ASTM D-5848, *Standard Test Method for Mass Per Unit Area of Pile Yarn Floor Coverings*
- ASTM D-1335, *Standard Method of Test for Tuft Bind of Pile Floor Coverings*
- ASTM D-3936, *Test Method for Delamination Strength of Secondary Backing of Pile Floor Coverings*
- ASTM D-3574, *Standard Test Methods for Flexible Cellular Materials – Slab, Bonded, and Molded Urethane Foams*
- ASTM D-3676, *Standard Specification for Rubber Cellular Cushions Used for Carpet or Rug Underlay*
- ASTM E-648, *Standard Test Methods for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source*
- ASTM D-2859, *Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials*

Order from: <http://www.document-center.com/home.cfm/sid=20478080/>

1.8.3. Headquarters Air Force Center for Environmental Excellence (HQ AFCEE):

- ETL 00-6: Air Force Carpet Standard
- *Carpet Selection Handbook*

(reference <http://www.afcee.brooks.af.mil/dc/dcd/interior/intdespu.htm>)

1.8.4. American Association of Textile Chemists and Colorists (AATCC):

- AATCC 20, *Qualitative Fiber Analysis*
- AATCC 134-1996, *Electrostatic Propensity of Carpets*
- AATCC 165, *Colorfastness to Crocking: Carpets - AATCC Crockmeter Method*
- AATCC 16 Option E, *Colorfastness to Light: Water-Cooled Xenon-Arc Lamp, Continuous Light*
- AATCC 171, *Carpets: Cleaning of, Hot Water Extraction Method*

Order from: <http://www.aatcc.org/>

1.8.5. Federal Specification

- DDD-C-0095A Shrinkage, Carpet and Rugs, Wool, Nylon, Acrylic, Modacrylic, Polyester, Polypropylene
- Uniform Federal Accessibility Standards (refer to <http://www.access-board.gov/bfdg.bfdg.htm>)

1.8.6. Environmental Protection Agency

- EPA *Comprehensive Procurement Guidelines*

Refer to <http://www.epa.gov/cpg/index.htm>

163 **1.8.7. National Fire Protection Association**

- 164
 - NFPA 99, *Standard for Healthcare Facilities*

165
166 Order from <http://www.nfpa.org/Codes/index.asp>.

167
168 **1.8.8. Public Law**

- 169
 - Code of Federal Regulations (CFR) Part 1630, *Standard for the Surface Flammability of*

170 *Carpets and Rugs (FF 1-70)* (reference

171 http://www.access.gpo.gov/nara/cfr/waisidx_99/16cfr1630_99.html.

172
 - Public Law 101-336, Americans with Disabilities Act (reference

173 <http://www.usdoj.gov/crt/ada/pubs/ada.txt>.

174

175 **2. Part 2 - Products**

176
177 **2.1 Carpet <Insert drawing designation, e.g., CPT-1.>**

178 <Copy and re-edit this Article for each carpet required.>

179
180 **2.1.1. End-use Application: <Insert End-use Application>** Application to be selected from CRI

181 *Commercial Carpet Specification Guidelines* document, Table 1, pages 2-5.

182
183 **2.1.2. Appearance Retention Rating: <Insert ARR>** Rating as specified in Section 2.3, page 5, of the

184 CRI *Commercial Carpet Specifications Guidelines* document.

185
186 **2.1.3. Minimum Use Classification: <Insert Use Classification>** Classification to be selected from CRI

187 *Commercial Carpet Specification Guidelines* document, Table 1, pages 2-5.

188
189 **2.1.4. Carpet type: <Insert Carpet Type>** Carpet type to be selected from *Appendix A-1, Specification*

190 *Guidelines*, pages 8-55.

191
192 **2.1.5. Pile Fiber Content: <Insert content by percentage, i.e. 100% Antron Nylon>** The fiber shall

193 consist of 100% branded (i.e., federally registered trademark) soil-hiding and static-resistant, with a

194 permanent integral static control element (antistatic topical coatings are not acceptable), advanced

195 generation fiber which may contain reclaimed polymer. Apart from meeting any denier, ply, and/or weight

196 requirements, the yarn must have sufficient twist and/or entanglement properties to achieve the specified

197 Appearance Retention Rating (ARR). Pile fiber identity is to be tested in accordance with AATCC 20.

198
199 **2.1.6. Recycled Content:**

200
201 **2.1.6.1. Carpet: <Insert either “a” or “b,” as indicated below.>** Carpet is included in the EPA’s

202 *Comprehensive Procurement Guidelines* for affirmative procurement of recycled content products.

- 203
- 204
 - a. Recycled content carpet, meeting the EPA requirements at www.epa.gov/cpg/products/carpet.htm

205 is specified for this project. Submit manufacturer’s label or cut sheets indicating the recycled

206 material content.

207
 - b. Recycled content carpet does not meet price or availability requirements and/or performance

208 requirements for this project, and has not been selected.

209
210 **2.1.6.2 Cushion: <Insert either “a” or “b,” as indicated below.>** Cushion is included in the EPA’s

211 *Comprehensive Procurement Guidelines* for affirmative procurement of recycled content products.

- 212
- 213
 - a. Recycled content cushion, meeting the EPA requirements at www.epa.gov/cpg/products/carpet.htm

214 is specified for this project. Submit manufacturer’s label or cut sheets indicating the recycled

215 material content.

216
 - b. Recycled content cushion does not meet price or availability requirements and/or performance

217 requirements for this project, and has not been selected.

- 218
- 219 **2.1.7.** Surface Texture: [Cut pile (same height, pattern, or geometric designs)] [Loop pile (or textured
- 220 loop, multi-level loop, or pattern)] [Cut and loop pile (same height combination or varying levels of pile
- 221 height and pile texture)] **<Select one.>**
- 222
- 223 **2.1.8.** Yarn: [Singles] [Multi-ply or commingled] **<Select one.>**
- 224
- 225 **2.1.9.** Yarn Twist: **<Insert twists/inch, optional information.>**
- 226
- 227 **2.1.10.** Tufting Machine Gauge: [1/8] [1/10] [1/12] [1/13] [5/64] **<Select one.>** Gauge is to be
- 228 measured in accordance with *ASTM D-5793*.
- 229
- 230 **2.1.11.** Number of Stitches: **<Insert stitches/inch.>**
- 231
- 232 **2.1.12.** Finished Pile Thickness: **<Insert number of inches.>** Thickness is to be tested in accordance
- 233 with *ASTM D-418*.
- 234
- 235 **2.1.13.** Average Finished Pile Weight (w): **<Insert oz/square yard.>** Pile weight to be tested in
- 236 accordance with *ASTM D-5848*.
- 237
- 238 **2.1.14.** Dye Method: [Piece] [Continuous] [Yarn or solution dyed] [Printed] **<Select one.>**
- 239
- 240 **2.1.15.** Colors: **< To be selected by Contracting Officer with Design Agent approval from a**
- 241 **potential vendor color line.>**
- 242
- 243 **2.1.16.** Pile Density: **<Insert oz/cu. yd.>** Density is to be a minimum of 4000 oz/cu. yd. for commercial
- 244 applications. Contracting Officer may elect to allow carpet with a density of 3500 oz/cu. yd. for residential
- 245 applications, provided that the product meets all other applicable requirements.
- 246
- 247 **2.1.17.** Backing: **<Insert either a or b, as indicated below.>**
- 248
- 249 a. A primary backing made from 100% synthetic material and a secondary scrim backing made from
- 250 100% synthetic material. Backing material identity is to be tested in accordance with *AATCC 20*.
- 251 b. A unitary backing for direct glue-down installations only. Primary backing made from 100%
- 252 synthetic material and with an application of high quality latex to increase tuft bind performance
- 253 properties without the addition of a secondary scrim backing. Backing material identity is to be
- 254 tested in accordance with *AATCC 20*.
- 255
- 256 **2.1.18.** Performance characteristics as follows:
- 257
- 258 • Tuft Bind: **<Insert average value.>** Tuft bind to be a minimum of 20.0 lbs. average for
 - 259 broadloom and 15.0 lbs. average for carpet tile, tested according to *ASTM D-1335*.
 - 260 • Dimensional Stability for carpet tiles: **<Insert % value.>** Dimensional stability to be tested
 - 261 according to *Aachener Test*.
 - 262 • Delamination Resistance of the Secondary Backing: **<Insert value.>** Resistance is to be tested
 - 263 according to *ASTM D-3936* (not applicable to unitary).
 - 264 • Colorfastness to Crocking: **<Insert value, for entire color line.>** Not less than 4, wet and dry,
 - 265 per *AATCC 165*.
 - 266 • Colorfastness to light: **<Insert value, for entire color line.>** Not less than 4 after 40 AFU
 - 267 (*AATCC* fading units) per *AATCC 16E*.
 - 268 • Fluorochemical Finish: **<Insert value.>** Finish to be tested according to *CRI TM-102*.
 - 269 • Electrostatic Propensity: **<Insert kV.>** Propensity to be a maximum of 3.5 kV for commercial
 - 270 applications and a maximum of 5.0 kV for residential applications, as tested in accordance with
 - 271 *AATCC 134*. Computer grade carpets, by special request, shall have electrostatic propensity of
 - 272 no more than 2.0 kV (*AATCC 134*), and electrical resistance of no less than 25,000 ohms and no

more than 109 ohms (NFPA 99). All shall have a static control construction which gives adequate durability and performance. All GSA carpets except those made with natural fiber shall be cleaned for 3 cycles (one with detergent, followed by two clear water rinses) before testing for electrostatic propensity (AATCC 134). Cleaning shall be in accordance with AATCC 171.

- Electrical resistance measured according to general methodology of NFPA 99 for conductive floors, modified to measure in required range – 70oF (20oC), 20% RH, and to use 100 volts in lieu of 500 volts. Appropriate instrumentation as recommended by IBM for performance of their version of the NFPA method. Electrical resistance requirements relate to an installed carpet. NOTE: For carpet tiles, in addition to the surface-to-ground test, surface-to-surface testing is required.
- Methenamine Pill Test/ Tablet Test: Comply with *Federal Flammability Standards CPSC FF 1-70*, when tested according to *ASTM D 2859*.
- Radiant Panel Test: A minimum critical radiant flux of 0.45 watts per cm. sq. when tested over fiber cement board (or over carpet and pad assembly) according to *ASTM E-648*.
- Indoor Air Quality - Carpet: All products must be certified with the CRI Indoor Air Quality (IAQ) Carpet Testing Program “Green Label” or tested for compliance to meet the CRI IAQ Carpet Testing Program requirements and criteria. All products must be retested on a quarterly basis to ensure continuing compliance with the CRI test program requirements. Products are additionally subject to compliance with *ASTM D-5116*.
- Indoor Air Quality - Cushion: Separate cushion for stretch-in installations shall only be those certified with the CRI Indoor Air Quality (IAQ) Carpet Testing Program “Green Label” or tested for compliance to meet the CRI IAQ Carpet Testing Program requirements and criteria. All products must be retested on a quarterly basis to ensure continuing compliance with the CRI test program requirements. Products are additionally subject to compliance with *ASTM D-5116*.
- Indoor Air Quality - Adhesives: Installation adhesives and seam sealers shall only be those certified with the CRI Indoor Air Quality (IAQ) Carpet Testing Program “Green Label” or tested for compliance to meet the CRI IAQ Carpet Testing Program requirements and criteria. All products must be retested on a quarterly basis to ensure continuing compliance with the CRI test program requirements. Products are additionally subject to compliance with *ASTM D-5116*.

2.1.19. Certifications: The manufacturer will be required to submit copies of independent laboratory reports showing the results of the following tests:

- Electrostatic (AATCC 134)
- Electrical Resistance (NFPA 99)
- Flooring Radiant Panel Test (*ASTM E-648*, report should be 2 years old or less)

2.2. CARPET CUSHION <Insert drawing designation, e.g., CPTC-1.>

<Copy and re-edit this Article for each carpet cushion required. If known, insert names of manufacturers and products.>

2.2.1. Traffic Classification: CCC Class [I, moderate traffic] [II, heavy traffic] [III, extra-heavy traffic]. <Select one.>

2.2.2. Rubber Cushion:

- [Flat] [Textured flat] [Reinforced]. <Select one.>
- Weight: <Insert oz./sq. yd. (g/sq. m).>
- Thickness: <Insert inches (mm)> plus 5 percent maximum.
- Compression Resistance: <Insert lb/sq. in. (kg/sq. m)> at [25] [65] percent per ASTM D 3676.
- Density: <Insert lb/cu. ft. (kg/cu. m).>

2.2.3. Polyurethane Foam Cushion:

- Type: [Grafted prime] [Densified] [Bonded] [Mechanically frothed] foam. <Select one.>
- Compression Force Deflection at 65 Percent: <Insert lb/sq. in. (kg/sq. m) of polymer density> per ASTM D 3574.

- Thickness: <Insert inches (mm).>
- Density: <Insert lb/cu. ft. (kg/cu. m).>

3. Part 3 - Execution

3.1 Installation

3.1.1. Comply with *CRI 104*, Section [8, "Direct Glue-Down."] [9, "Double Glue-Down."] [10, "Attached Cushion."] [11, "Stretch-in Utilizing Tackless Strip."] <Select one.>

3.1.2. Comply with *CRI 104*, Section 12, "Carpet on Stairs."

3.1.3. Maintain uniformity of carpet direction and lay of pile. At doorways, center seams under door in closed position. Bind or seal cut edges as recommended by carpet manufacturer.

3.1.4. Install pattern parallel to walls and borders.

3.1.5. Install per manufacturer's recommendations and specifications.

<End of Section 09680, Carpet Specification>

Air Force Interior Design Guides
Chapter 7 – Attachment 2: Sample Specifications
Blank Specification

CSI Section 09680 – Carpet

Project: Jones Retail Store

1. Part 1 – General

1.1. Summary: This Section includes woven carpet, tufted carpet, carpet tile, and carpet cushion.

1.2. Submittals

1.2.1. Product Data: For each product indicated.

1.2.2. Shop Drawings: Include the following:

- Existing floor materials to be removed.
- Existing floor materials to remain.
- Seam locations.
- Pattern type, repeat, location, direction, and starting point.
- Pile direction.
- Insets and borders.
- Transition, and other accessory strips.
- Transition details to other flooring materials.

1.2.3. Samples: For each carpet, cushion, and exposed accessory and for each color and pattern required, as per Contracting Officer request.

1.2.4. Product Schedule: Use same room and product designations indicated on Drawings and in schedules.

1.2.5. Maintenance data.

1.3. Quality Assurance

1.3.1. Contractor/Installer Qualifications: All work is to be performed by contractors/installers who are CFI Certified Floorcovering Installers (International Certified Flooring Installer Association), or manufacturer's approved installers. Foremen on the job-site must be "Certified C-II Minimum."

1.3.2. Inspection: All materials to be made available for inspection as per Contracting Officer request.

1.3.3. Install mockups as per Contracting Officer request. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.4. Delivery, Storage, Handling, and Labeling

1.4.1. Comply with CRI 104, Section 5, "Storage and Handling."

1.4.2. Labeling:

- A label meeting the Federal Labeling Requirements, as stated in the Textile Products Identification Act under the Federal Trade Commission, shall be attached to the certification sample and the product delivered to the purchaser.
- The manufacturer is required to put all information as to the country of origin, fiber content, manufacturer's name or RN number, or a label or tag attached to a conspicuous place on the outside of the carpet. This information should be set forth consecutively and separately in type or lettering plainly legible and of equal size.

1.5. Project Conditions

1.5.1. General: Comply with CRI 104, Section 6.1, "Site Conditions; Temperature and Humidity."

1.5.2. Environmental Limitations: Do not install carpet and cushion until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.5.3. Do not install carpet over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by manufacturer.

1.5.4. Where demountable partitions or other items are indicated for installation on top of carpet, install carpet before installing these items.

1.6. Warranty

1.6.1. Carpet Warranty: Manufacturer's standard form in which manufacturer agrees to replace carpet that does not comply with requirements or that fails within ten [10] years from date of Substantial Completion. Warranty does not include deterioration or failure of carpet from unusual traffic, failure of substrate, vandalism, or abuse. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, and delamination.

1.6.2. Carpet Cushion Warranty: Manufacturer's standard form agreeing to replace carpet cushion that does not comply with requirements or that fails within ten [10] years from date of Substantial Completion. Warranty does not include deterioration or failure of carpet cushion from unusual traffic, failure of substrate, vandalism, or abuse. Failure includes, but is not limited to, permanent indentation or compression.

1.7. Extra Materials

1.7.1. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

2. Carpet: Full-width rolls or uncut carpet tiles equal to [10] ten percent of amount installed for each type indicated, but not less than [10 sq. yd. (8.3 sq. m)].

1.8. Applicable Publications:

1.8.1. Carpet and Rug Institute

- CRI 104, *Standard for Installation of Commercial Carpet*
- CRI 105, *Standard for Installation of Residential Carpet*
- CRI TM-102
- CRI Indoor Air Quality (IAQ) "Green Label" Testing Programs
- Commercial Carpet Specification Guidelines

Order from: The Carpet and Rug Institute
P.O. Box 2048

Dalton, GA 30722-2048
Fax 706-278-8835
Telephone (706)278-0232 or 1-800-882-8846

1.8.2. American Society for Testing and Materials (ASTM):

- ASTM D-5793, *Standard Test Method for Binding Sites Per Unit Length or Width of Pile Yarn Floor Coverings*
- ASTM D-418, *Standard Test Methods for Testing Pile Yarn Floor Covering Construction*
- ASTM D-5116, *Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products*
- ASTM D-5848, *Standard Test Method for Mass Per Unit Area of Pile Yarn Floor Coverings*
- ASTM D-1335, *Standard Method of Test for Tuft Bind of Pile Floor Coverings*
- ASTM D-3936, *Test Method for Delamination Strength of Secondary Backing of Pile Floor Coverings*
- ASTM D-3574, *Standard Test Methods for Flexible Cellular Materials – Slab, Bonded, and Molded Urethane Foams*
- ASTM D-3676, *Standard Specification for Rubber Cellular Cushions Used for Carpet or Rug Underlay*
- ASTM E-648, *Standard Test Methods for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source*
- ASTM D-2859, *Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials*

Order from: <http://www.document-center.com/home.cfm/sid=20478080/>

1.8.3. Headquarters Air Force Center for Environmental Excellence (HQ AFCEE):

- ETL 00-6: Air Force Carpet Standard
- *Carpet Selection Handbook*

(reference <http://www.afcee.brooks.af.mil/dc/dcd/interior/intdespu.htm>)

1.8.4. American Association of Textile Chemists and Colorists (AATCC):

- AATCC 20, *Qualitative Fiber Analysis*
- AATCC 134-1996, *Electrostatic Propensity of Carpets*
- AATCC 165, *Colorfastness to Crocking: Carpets - AATCC Crockmeter Method*
- AATCC 16 Option E, *Colorfastness to Light: Water-Cooled Xenon-Arc Lamp, Continuous Light*
- AATCC 171, *Carpets: Cleaning of, Hot Water Extraction Method*

Order from: <http://www.aatcc.org/>

1.8.5. Federal Specification

- DDD-C-0095A Shrinkage, Carpet and Rugs, Wool, Nylon, Acrylic, Modacrylic, Polyester, Polypropylene
- Uniform Federal Accessibility Standards (refer to <http://www.access-board.gov/bfdg.bfdg.htm>)

1.8.6. Environmental Protection Agency

- *EPA Comprehensive Procurement Guidelines*

Refer to <http://www.epa.gov/cpg/index.htm>

1.8.7. National Fire Protection Association

- NFPA 99, *Standard for Healthcare Facilities*

Order from <http://www.nfpa.org/Codes/index.asp>.

1.8.8. Public Law

- Code of Federal Regulations (CFR) Part 1630, *Standard for the Surface Flammability of Carpets and Rugs (FF 1-70)* (reference http://www.access.gpo.gov/nara/cfr/waisidx_99/16cfr1630_99.html).
- Public Law 101-336, Americans with Disabilities Act (reference <http://www.usdoj.gov/crt/ada/pubs/ada.txt>).

2. Part 2 - Products

2.1 Carpet: **CPT-1**

2.1.1. End-use Application: **Retail Store Office**. Application to be selected from CRI *Commercial Carpet Specification Guidelines* document, Table 1, pages 2-5.

2.1.2. Appearance Retention Rating: **Heavy**. Rating as specified in Section 2.3, page 5, of the CRI *Commercial Carpet Specifications Guidelines* document.

2.1.3. Minimum Use Classification: **Heavy**. Classification to be selected from CRI *Commercial Carpet Specification Guidelines* document, Table 1, pages 2-5.

2.1.4. Carpet type: **Tufted**. Carpet type to be selected from *Appendix A-1, Specification Guidelines*, pages 8-55.

2.1.5. Pile Fiber Content: **100% Antron Nylon, type 6,6**. The fiber shall consist of 100% branded (i.e., federally registered trademark) soil-hiding and static-resistant, with a permanent integral static control element (antistatic topical coatings are not acceptable), advanced generation fiber which may contain reclaimed polymer. Apart from meeting any denier, ply, and/or weight requirements, the yarn must have sufficient twist and/or entanglement properties to achieve the specified Appearance Retention Rating (ARR). Pile fiber identity is to be tested in accordance with AATCC 20.

2.1.6. Recycled Content:

2.1.6.1. Carpet: **(b)** Carpet is included in the EPA's *Comprehensive Procurement Guidelines* for affirmative procurement of recycled content products.

- c. Recycled content carpet, meeting the EPA requirements at www.epa.gov/cpg/products/carpet.htm is specified for this project. Submit manufacturer's label or cut sheets indicating the recycled material content.
- d. Recycled content carpet does not meet price or availability requirements and/or performance requirements for this project, and has not been selected.

2.1.6.2 Cushion: **(a)** Cushion is included in the EPA's *Comprehensive Procurement Guidelines* for affirmative procurement of recycled content products.

- c. Recycled content cushion, meeting the EPA requirements at www.epa.gov/cpg/products/carpet.htm is specified for this project. Submit manufacturer's label or cut sheets indicating the recycled material content.
- d. Recycled content cushion does not meet price or availability requirements and/or performance requirements for this project, and has not been selected.

2.1.7. Surface Texture: **Textured loop**

2.1.8. Yarn: **3-ply Comingled**

2.1.9. Yarn Twist: **N/A**

2.1.10. Tufting Machine Gauge: **1/10 GA.** Gauge is to be measured in accordance with *ASTM D-5793*.

2.1.11. Number of Stitches: **13.5 stitches/inch.**

2.1.12. Finished Pile Thickness: **0.160 inches average.** Thickness is to be tested in accordance with *ASTM D-418*.

2.1.13. Average Finished Pile Weight (w): **32 ounces/square yard.** Pile weight to be tested in accordance with *ASTM D-5848*.

2.1.14. Dye Method: **Solution-dyed.**

2.1.15. Colors: **To be selected by Contracting Officer with Design Agent approval from a potential vendor color line.**

2.1.16. Pile Density: **4,200 oz/cu. yd.** Density is to be a minimum of 4000 oz/cu. yd. for commercial applications. Contracting Officer may elect to allow carpet with a density of 3500 oz/cu. yd. for residential applications, provided that the product meets all other applicable requirements.

2.1.17. Backing: **(a)**

- c. A primary backing made from 100% synthetic material and a secondary scrim backing made from 100% synthetic material. Backing material identity is to be tested in accordance with *AATCC 20*.
- d. A unitary backing for direct glue-down installations only. Primary backing made from 100% synthetic material and with an application of high quality latex to increase tuft bind performance properties without the addition of a secondary scrim backing. Backing material identity is to be tested in accordance with *AATCC 20*.

2.1.18. Performance characteristics as follows:

- Tuft Bind: **22.0 lbs average.** Tuft bind to be a minimum of 20.0 lbs. average for broadloom and 15.0 lbs. average for carpet tile, tested according to *ASTM D-1335*.
- Dimensional Stability for carpet tiles: **N/A** Dimensional stability to be tested according to *Aachener Test*.
- Delamination Resistance of the Secondary Backing: **3.0 lbs per square inch** Resistance is to be tested according to *ASTM D-3936* (not applicable to unitary).
- Colorfastness to Crocking: **4 wet, 4 dry.** Not less than 4, wet and dry, per *AATCC 165*.
- Colorfastness to light: **(4)** Not less than 4 after 40 AFU (AATCC fading units) per *AATCC 16E*.
- Fluorochemical Finish: **375 ppm average.** Finish to be tested according to *CRI TM-102*.
- Electrostatic Propensity: **3.0 kV.** Propensity to be a maximum of 3.5 kV for commercial applications and a maximum of 5.0 kV for residential applications, as tested in accordance with *AATCC 134*. Computer grade carpets, by special request, shall have electrostatic propensity of no more than 2.0 kV (*AATCC 134*), and electrical resistance of no less than 25,000 ohms and no more than 109 ohms (*NFPA 99*). All shall have a static control construction which gives adequate durability and performance. All GSA carpets except those made with natural fiber shall be cleaned for 3 cycles (one with detergent, followed by two clear water rinses) before testing for electrostatic propensity (*AATCC 134*). Cleaning shall be in accordance with *AATCC 171*.
- Electrical resistance measured according to general methodology of *NFPA 99* for conductive floors, modified to measure in required range – 70oF (20oC), 20% RH, and to use 100 volts in lieu of 500 volts. Appropriate instrumentation as recommended by IBM for performance of their

version of the NFPA method. Electrical resistance requirements relate to an installed carpet.
NOTE: For carpet tiles, in addition to the surface-to-ground test, surface-to-surface testing is required.

- Methenamine Pill Test/ Tablet Test: Comply with *Federal Flammability Standards CPSC FF 1-70*, when tested according to *ASTM D 2859*.
- Radiant Panel Test: A minimum critical radiant flux of 0.45 watts per cm. sq. when tested over fiber cement board (or over carpet and pad assembly) according to *ASTM E-648*.
- Indoor Air Quality - Carpet: All products must be certified with the CRI Indoor Air Quality (IAQ) Carpet Testing Program "Green Label" or tested for compliance to meet the CRI IAQ Carpet Testing Program requirements and criteria. All products must be retested on a quarterly basis to ensure continuing compliance with the CRI test program requirements. Products are additionally subject to compliance with *ASTM D-5116*.
- Indoor Air Quality - Cushion: Separate cushion for stretch-in installations shall only be those certified with the CRI Indoor Air Quality (IAQ) Carpet Testing Program "Green Label" or tested for compliance to meet the CRI IAQ Carpet Testing Program requirements and criteria. All products must be retested on a quarterly basis to ensure continuing compliance with the CRI test program requirements. Products are additionally subject to compliance with *ASTM D-5116*.
- Indoor Air Quality - Adhesives: Installation adhesives and seam sealers shall only be those certified with the CRI Indoor Air Quality (IAQ) Carpet Testing Program "Green Label" or tested for compliance to meet the CRI IAQ Carpet Testing Program requirements and criteria. All products must be retested on a quarterly basis to ensure continuing compliance with the CRI test program requirements. Products are additionally subject to compliance with *ASTM D-5116*.

2.1.19. Certifications: The manufacturer will be required to submit copies of independent laboratory reports showing the results of the following tests:

- Electrostatic (*AATCC 134*)
- Electrical Resistance (*NFPA 99*)
- Flooring Radiant Panel Test (*ASTM E-648*, report should be 2 years old or less)

2.2. CARPET CUSHION: N/A

3. Part 3 - Execution

3.1 Installation

3.1.1. Comply with *CRI 104*, **Section 8, "Direct Glue-Down."**

3.1.2. Comply with *CRI 104*, Section 12, "Carpet on Stairs."

3.1.3. Maintain uniformity of carpet direction and lay of pile. At doorways, center seams under door in closed position. Bind or seal cut edges as recommended by carpet manufacturer.

3.1.4. Install pattern parallel to walls and borders.

3.1.6. Install per manufacturer's recommendations and specifications.

<End of Section 09680, Carpet Specification>